

## Abstract

~~The invention relates to a scanning microscope comprising: at least one light source (1, 3) that generates a beam bundle of illumination light; an acoustooptic component (13) for adjusting the light output of the illumination light beam bundle; and a beam deflection unit (19, 36) for guiding the illumination light beam bundle over or through a sample (27). Said microscope is configured in such a way that the acoustooptic component (13) spatially separates a partial light beam bundle from the illumination light beam bundle. The microscope is also equipped with beam guidance means, which direct the partial light beam bundle onto the sample, preferably to manipulate the latter.~~

A scanning microscope includes at least one light source, an acousto-optical element, a beam deflection device and a beam guiding device. The at least one light source generates an illuminating light beam. The acousto-optical element spatially splits a sub-light beam from the illuminating light beam and adjusts an optical power of the illuminating light beam. The beam deflection device scans the illuminating light beam over or through a sample. The beam guiding device directs the sub-light beam onto the sample.